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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,273	04/30/2001	Siegfried Ruthardt	R.37659	1054
2119	7590	01/09/2004	EXAMINER	
RONALD E. GREIGG GREIGG & GREIGG P.L.L.C. 1423 POWHATAN STREET, UNIT ONE ALEXANDRIA, VA 22314			GORMAN, DARREN W	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,273

Applicant(s)

RUTHARDT ET AL.

Examiner

Darren W Gorman

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,14-17,20,21 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,9,18,23,26,29 and 30 is/are rejected.
- 7) ☒ Claim(s) 3,4,8,10-13,19,22,24,27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the Amendment filed December 31, 2003, paper #18.

Claims 1-30 remain pending in the case.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 2, 18, 23, 26, 29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the recitation of “in the end of the nozzle needle toward the valve piston, a blind bore is embodied centrally, and the end of the valve piston, or an end of the thrust rod is received in said bore” is unclear. As set forth in the previous Office Action, paper #17, the drawings seem to show a blind bore embodied centrally in the valve piston, however the claim reads as if the blind bore is embodied in the nozzle needle. Nothing seen in the drawings clearly depicts a blind bore in the nozzle needle. In fact, as seen in Figure 4, an “adjusting piece” (19) is embodied between the cooperating ends of the nozzle needle and the valve piston, so it is unclear how the valve piston (6) or thrust rod (8) could possibly be received into a blind bore of the nozzle needle, even if a blind bore existed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Koenigswieser et al., USPN 5,413,076.

Koenigswieser shows a common rail injector having an injector housing which communicates with a central high-pressure reservoir and a nozzle needle (59) that cooperates with a valve piston assembly (49) which is axially displaceable in the housing and an intermediate piston segment (65) of which is guided in a valve piece (67), the improvement wherein the end of the nozzle needle (59) toward the valve piston assembly (49) protrudes into a guide sleeve (29, 31), and the end of another intermediate segment (61) of the valve piston assembly (49) oriented toward the nozzle needle (59) is also received in the guide sleeve (29, 31) (see Figure 2; and column 4, lines 63-65 and column 5, lines 6-31).

Regarding claim 7, in the context of Applicant's disclosure and as shown in Applicant's elected Figure 9, the flat surface of the face end of the guide sleeve remote from the nozzle needle of Koenigswieser is capable of retaining a nozzle spring (see Figure 2).

Regarding claim 9, Koenigswieser also shows the injector further comprising an adjusting piece (no reference number) disposed between the nozzle needle and the valve piston (see Figure 2).

Allowable Subject Matter

6. Claims 3, 4, 8, 10-13, 19, 22, 24, 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed regarding the prior art reference of Koenigswieser et al. as not teaching all of the claimed limitations of claims 1, 7, and 9, have been fully considered but they are not persuasive.

Regarding Applicant's assertion on page 9 of paper #18, that the valve piston of Koenigswieser is never within the valve piece, the Examiner points out that element (65), defined by Koenigswieser as a second intermediate piston, is a segment of the valve piston assembly (49) already identified by the Examiner, and is guided in valve piece (67), that piston assembly including a first intermediate segment (61) which is also guided in a guide sleeve (29, 31), thereby reading on the limitations as set forth in Applicant's claim 1. Essentially, valve piston (49) comprises two segments (61, 65), with segment (65) being guided in valve piece (67), and segment (61) being guided in guide sleeve (29, 31), as seen in Figure 2 and consistent with column 5, lines 6-31 of the specification.

Regarding the assertion on page 10 of paper #18, that "the booster piston (29) of Koenigswieser et al. does not guide the first intermediate piston (61)" and that "it cannot properly be said that booster piston (29) provides a guide function for the intermediate piston (61) as annular space (63) precludes such guidance function", the Examiner turns the Applicant's

attention to column 4, lines 63-65 of Koenigswieser, which states “The booster piston 29 has an axial bore 47, in which a multiple-piece pistonlike injection valve member 49 is guided”.

Regarding Applicant’s assertion with regard to the rejection of claim 7, on page 10 of paper #18, that “Koenigswieser et al does not have anything like a spring which would cooperate with the guide sleeve (16), and so claim 7 defines structure which is not taught by Koenigswieser et al.”, claim 7, which recites, “wherein the dimensions of the guide sleeve (16), on its face end remote from the nozzle needle (14), are adapted to the dimensions of a nozzle spring (18)”, does not clearly claim a “nozzle spring”. The claim only recites that the dimensions of that particular face end of the guide sleeve are adapted to the dimensions of a nozzle spring. For this reason, the reference to Koenigswieser is not required to physically have a nozzle spring embodied on that face end of the guide sleeve. The upper face end (30) of the guide sleeve of Koenigswieser is only required to be capable of embodying a nozzle spring, in order to meet the limitations of claim 7.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 3752

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W Gorman whose telephone number is 703-306-4205. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on 703-308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

Darren W Gorman
Examiner
Art Unit 3752

DWG 1/7/04
DWG
January 7, 2004



**MICHAEL MAR
SUPERVISORY PATENT EXAMINER
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